



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,531	01/23/2004	Tony Hulkkonen	059643.00361	5351
32294 7590 12/13/2007 SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182			EXAMINER D AGOSTA, STEPHEN M	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 12/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/762,531

Applicant(s)

HULKKONEN ET AL.

Examiner

Stephen M. D'Agosta

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 and 32-47 is/are rejected.
- 7) ☒ Claim(s) 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

1. The claim objection is overcome by the applicant's response. The examiner was seeking clarification on "if" the applicant's design was intending to define (or limit) exactly where the "location data" was being generated/received. Since the applicant states that this is not required, the examiner withdraws his objection but therefore continues to utilize a reasonably broad interpretation of the claims.

Accordingly, since the applicant[s] have submitted no persuasive evidence that the inventive concept is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable. Furthermore, it is no more than the predictable use of prior art elements according to their established functions resulting in the simple modification of one known element for another or the mere application of a known technique to the piece of prior art put forth.

2. A new rejection is put forth for the amended claims. While the examiner has added new art, he notes that with a small change in the respective functions of Andersson, the prior art yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art.

3. Claims 46-47 were not amended in a similar fashion, hence the previous rejection is upheld. Also, the claim phraseology used in 46-47 does not tie together all the steps into one "process". The claims merely state that the entity/network can perform these functions (which Andersson teaches within the spirit and scope of his invention). Hence the examiner gives these claims their broadest reasonable interpretation (eg. Until the applicant amends them to read as one coordinated function).

4. The examiner considers the dependent claim amendments to not change the scope of said claims, hence they are not shown below (but are still rejected).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-8, 10-16, 18-19, 21, 25-26, 29-30, 32-33, 35-36, and 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. US 6,230,017 and further in view of Valentine et al. US 6,011,973.

As per **claims 1, 18-19-20, 35 and 46-47**, Andersson teaches a method, comprising:

supporting emergency calls (C9, L37-42) in a mobile communications network (figure 1a), said mobile communication network comprising a network element (figure 1a shows the mobile network with various different "network elements" including Base Stations, VLR, HLR, MSC, GMSC, PSTN, etc.);

receiving a network access from a user equipment (figure 3 shows the process of the mobile phone dialing for network access to complete a call. One skilled understands that network access is a process well known in the art);

receiving, at the network element, network access information relating to said user equipment, said network access information indicating the areas the user equipment is allowed to access (Abstract teaches determining the mobile's location and checking to see if it is located in a cell which it can transmit/receive calls/data. Also see figure 2a, #112 which shows the HLR/network element storing "Allowed Cells List" and also figures 2b thru 2d which show Allowed/Restricted Cells and Times);

selectively controlling access to the network in dependence on said network access information (figure 3) AND disabling the selectively controlling access to the

network for an emergency call network access (See abstract, C2, L25-67 and figure 3 for controlling access. See C9, L59-67 for allowing emergency calls through: “..As indicated by step 3-2, mobile switching center 30 immediately checks to determine whether the dialed number corresponds to an emergency service or other toll-free number. If an emergency service has been dialed, mobile switching center 30 completes the call without reference to any geographical restrictions (see step 3-3)”.

But is silent on the steps wherein the emergency call is first received, network access information is determined, the call is identified as an emergency call and selective access is disabled in dependence on the network access information responsive to the identifying.

The examiner notes that Andersson fully teaches the concept of denying access based on user location but overrides said access if the call is an emergency call. Andersson’s “difference” is see in the actual steps/procedures he performs (eg. he overrides the location determination if an emergency call is received). The examiner notes that Andersson does allow for one skilled in the art to make “...various alterations may be made without departing from the spirit and scope of the invention (C12, L1-5).

Similary, the examiner puts forth Valentine who determines the geographical location of a mobile user first before allowing/denying operation of the mobile to make/receive calls (Abstract, figure 3). Therefore the exact “steps” used are open to modification (eg. Andersson doesn’t first check location of user while Valentine does), hence one would re-arrange said steps within the spirit and scope of these pieces of art to arrive at the claimed inventive concept (eg. determine if emergency call, determine location, process call based on location).

With further regard to claims 18-19, Andersson teaches “computer code/programs” being embodied by the implementation of figure 3 which requires software code/programs running on a processor to perform the stated operations/commands.

~~With further regard to claims 20 and 46~~, Andersson teaches various network elements that are involved with the access/denial of calls to/from a mobile device based on its current cell location. Furthermore, Andersson shows that the HLR/VLR stores Allowed Cell lists and thus reads on a “network element”.

With further regard to claims 35 and 47, Andersson teaches a communication system (see figure 1a).

As per **claim 2**, Andersson teaches claim 1, wherein said receiving includes receiving the network access information that comprises network area access information (figures 2a thru 2d show “Allowed Cells List” which reads on which cells a mobile can/can’t access).

As per **claims 3 and 22**, Andersson teaches claim 1/20, further including: determining whether said network access comprises an emergency call (See C9, L59-67 for allowing emergency calls through:

“..As indicated by step 3-2, mobile switching center 30 immediately checks to determine whether the dialed number corresponds to an emergency service or other toll-free number. If an emergency service has been dialed, mobile switching center 30 completes the call without reference to any geographical restrictions”).

As per **claims 6 and 25-26**, Andersson teaches claim 1/20, wherein said selectively controlling includes selectively controlling the network which comprises an access network and a core network (figures 2a-2d show access lists stored in the HLR to control whether the network components, eg. access/core components, allow in/outgoing calls to/from the mobile).

As per **claim 7**, Andersson teaches claim 6, wherein the controlling and the disabling the access to the network are performed in the access network (figures 2a-2d show the HLR/VLR as storing the access control data which is used by the MSC/BSC/BTS to allow/deny access).

As per **claim 8**, Andersson teaches claim 6, further comprising: determining whether said network access is an emergency call in dependence on receipt of an indication of the type of network access from the core network (figures 2a thru 2d show the HLR storing the Access Cell List which is used by MSC/BSC/BTS to allow/deny access).

As per **claims 10 and 29**, Andersson teaches claim 1/20, further comprising: detecting a network access initiation; and, responsive thereto, disabling the selectively controlling access to the network (see figure 3 which shows the process of identifying a call and then determining, based on location, if the call is allowed/denied).

As per **claims 11 and 30**, Andersson teaches claim 10/29, wherein said disabling includes disabling for a predetermined time period (figure 2d shows Restricted Times, #116D and #118D, which provides a "time range" whereby calls are allowed/denied, hence a time period is taught. A "timer" must be inherently used in order to measure the elapsed time).

As per **claims 12-13**, Andersson teaches claim 10, further comprising: detecting establishment of a radio access bearer; and responsive thereto, activating the disabling the selectively controlling access to the network for an emergency call network access AND activating the disabling the selectively controlling access to the network only for the emergency call network access associated with that radio access bearer. (See C9, L59-67).

As per **claim 14**, Andersson teaches claim 10, further comprising: terminating said disabling responsive to a control signal (figure 3 shows that each-and-every call begins with a new call operation, hence a "control signal" must be utilized to "reset" the process of figure 3 so that the disablement is not turned on once and then left on. One skilled understands that control signals are used between the network elements to properly control the devices such that each call is identified as being "allowed or denied" and then checked to see if is an emergency call or not).

As per **claims 15 and 32**, Andersson teaches claim 6/25, further comprising: receiving the network access information from the core network (Similar to the rejection of claim 1, the examiner interprets that the Network Access information is inputted by a Network Admin and accessed/transmitted from the HLR/VLR to the appropriate network components, eg. MSC/BSC/BTS).

As per **claims 16, 33, 36 and 42**, Andersson teaches claim 1/20/35, further comprising: detecting termination of an emergency call; and, responsive thereto, enabling the selectively controlling access to the network (figure 3 shows the process of a normal call and an emergency call being completed. The examiner notes that the "enabled/disabled control" process would be "reset" after each-and-every call).

As per **claim 21**, Andersson teaches claim 20, wherein the network access information is shared network area access information (Figures 1a thru 2d show that the access information is stored in a shared network element, eg. HLR/VLR).

Claims 4-5, 9, 23-24, 27-28, 34 and 37-41 rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson/Valentine and further in view of Lindgren.

As per **claims 4-5, 23-24 and 37-38**, Andersson teaches claim 3/22/35, wherein the determining whether said network access is for an emergency call received/determined by mobile or network (See C9, L59-67 whereby the "type" of call is determined to be a emergency call, eg. based on the dialed digits) **but is silent on** includes receiving an indication of the type of call

Lindgren teaches wherein the step determining said network access an emergency call includes receiving an indication type call (C2, L54-59 teaches the activation message includes an "indication" that the call is an emergency call).

It would have been obvious to one skilled in the art at the time of the invention to modify Andersson, such that an indication is used, to provide means for the network to quickly determined via the indicator what type of call is being dialed (eg. without having to read the dialed digits).

As per **claims 9 and 28**, Andersson teaches claim 5/24, further comprising: activating the disabling the selectively controlling access to the network (See C9, L59-67 whereby the "type" of call is determined to be a emergency call, eg. based on the dialed digits), **but is silent on** wherein said activating comprises activating on receipt of the indication of the type of network access being the emergency call.

Lindgren teaches wherein the step determining said network access an emergency call includes receiving an indication type call (C2, L54-59 teaches the activation message includes an "indication" that the call is an emergency call).

It would have been obvious to one skilled in the art at the time of the invention to modify Andersson, such that said activating comprises activating on receipt of the indication of the type of network access being the emergency call, to provide means for using an indication/type to determine what call is being performed (eg. normal, emergency, etc.)

As per **claim 27**, Andersson teaches claim 24, further comprising: determining whether said network access is an emergency call in dependence on receipt of an indication of the type of network access from the core network (figures 2a thru 2d show HLR storing the Access Cell List is used by MSC/BSC/BTS to allow/deny access).

As per **claim 34**, Andersson teaches claim 26, wherein the network element is a radio network controller of a radio access network (figure 1a shows the mobile communicating with a BTS/BSC/MSC).

As per **claim 39**, Andersson teaches claim 38, further comprising: detecting a network access initiation; and, responsive thereto, disabling the selectively controlling access to the network (see figure 3 which shows the process of identifying a call and then determining, based on location, if the call is allowed/denied).

As per **claim 40**, Andersson teaches claim 39, wherein said disabling includes disabling for a predetermined time period (figure 2d shows Restricted Times, #116D and #118D, which provides a "time range" whereby calls are allowed/denied, hence a time period is taught. A "timer" must be inherently used in order to measure the elapsed time).

As per **claim 41**, Andersson teaches claim 39, further comprising: detecting establishment of a radio access bearer; and responsive thereto, activating the disabling the selectively controlling access to the network for an emergency call network access AND activating the disabling the selectively controlling access to the network only for the emergency call network access associated with that radio access bearer. (See C9, L59-67).

Claims 17 and 45 rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson.

As per **claims 17 and 45**, Andersson teaches claim 1/35, further comprising: performing the method in a mobile communication system (figure 1a) **but is silent on** a third generation partnership project.

Andersson does not limit himself to a certain type/generation of mobile network and allows for one skilled to modify various elements/methods within the spirit and scope of the invention (C12, L1-5).

The examiner takes **Official Notice** that 3GPP mobile networks are known in the art and provide similar services (eg. backward compatible) as those from previous generations. Hence one skilled would modify Andersson's patented concepts and apply them to future (eg. 3GPP) mobile networks.

It would have been obvious to one skilled in the art at the time of the invention to modify Andersson, such that 3GPP networks are supported, to provide means for supporting industry standards in new/future networks when they are rolled out.

Claims 43-44 rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson/Valentine and further in view of Kowaguchi and Choi et al..

As per claims 43-44, Andersson teaches claim 35 **but is silent on** further including means for receiving an indication of emergency call on relocation call to access network AND/OR further including means transmitting an indication the emergency call on relocation of the call another access network.

The primary examiner notes that Lindgren does discuss the fact that the user may be roaming (C5, L12-22) and determining the "identity of the locally geographic VoIP call server that should receive the forthcoming call control signals from the mobile phone" which suggests Lindgren does understand that the location of the mobile user is important and must be determined. Also, since the call is an emergency call, a handover (eg. relocation of the call to another network) must be supported as well.

The examiner also notes that **Kowaguchi** teaches a mobile device that can determine its own location and then use an inhibit table to turn itself Off/On (Abstract), eg. no "network access information" is needed to be received from the network.

Furthermore, **Choi** teaches handing off an emergency call (C6, L42-53):

"...Reference is now made to FIG. 5 wherein there is shown a message flow and network operation diagram illustrating use of an information request message in accordance with the present invention to request call related information following inter-exchange hand-off of an emergency services call. An emergency services call (e.g., a 911 call) 500 is currently in existence and has proceeded through a completed inter-exchange hand-off. Thus, both a serving exchange 502 and an anchor exchange 504 are implicated in handling the call 500 between a mobile station 506 and an emergency services center 508..."

It would have been obvious to one skilled in the art at the time of the invention to modify Lindgren, such that it includes means for receiving an indication of emergency call on relocation call to access network AND/OR further including means transmitting an indication the emergency call on relocation of the call to another access network, to provide means for supporting the emergency call during relocation/handoff.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20-22, 25-26, 29-30, 32-33 and 46-47 rejected under 35 U.S.C. 102(b)

as being anticipated by Andersson et al. US 6,230,017.

As per **claims 20, 46-47**, Andersson teaches a method, comprising:
supporting emergency calls (C9, L37-42) in a mobile communications network (figure 1a), said mobile communication network comprising a network element

(figure 1a shows the mobile network with various different "network elements" including Base Stations, VLR, HLR, MSC, GMSC, PSTN, etc.);

receiving a network access from a user equipment (figure 3 shows the process of the mobile phone dialing for network access to complete a call. One skilled understands that network access is a process well known in the art);

receiving, at the network element, network access information relating to said user equipment, said network access information indicating the areas the user equipment is allowed to access (Abstract teaches determining the mobile's location and checking to see if it is located in a cell which it can transmit/receive calls/data. Also see figure 2a, #112 which shows the HLR/network element storing "Allowed Cells List" and also figures 2b thru 2d which show Allowed/Restricted Cells and Times);

selectively controlling access to the network in dependence on said network access information (figure 3) AND disabling the selectively controlling access to the network for an emergency call network access (See abstract, C2, L25-67 and figure 3 for controlling access. See C9, L59-67 for allowing emergency calls through: "...As indicated by step 3-2, mobile switching center 30 immediately checks to determine whether the dialed number corresponds to an emergency service or other toll-free number. If an emergency service has been dialed, mobile switching center 30 completes the call without reference to any geographical restrictions (see step 3-3)".

With further regard to claims 20 and 46, Andersson teaches various network elements that are involved with the access/denial of calls to/from a mobile device based on its current cell location. Furthermore, Andersson shows that the HLR/VLR stores Allowed Cell lists and thus reads on a "network element".

With further regard to claim 47, Andersson teaches a communication system (see figure 1a).

As per **claim 21**, Andersson teaches claim 20, wherein the network access information is shared network area access information (Figures 1a thru 2d show that the access information is stored in a shared network element, eg. HLR/VLR).

As per **claim 22**, Andersson teaches claim 20, further including: determining whether said network access comprises an emergency call (See C9, L59-67 for allowing emergency calls through:

“..As indicated by step 3-2, mobile switching center 30 immediately checks to determine whether the dialed number corresponds to an emergency service or other toll-free number. If an emergency service has been dialed, mobile switching center 30 completes the call without reference to any geographical restrictions”).

As per **claim 25-26**, Andersson teaches claim 20, wherein said selectively controlling includes selectively controlling the network which comprises an access network and a core network (figures 2a-2d show access lists stored in the HLR to control whether the network components, eg. access/core components, allow in/outgoing calls to/from the mobile).

As per **claim 29**, Andersson teaches claim 20, further comprising: detecting a network access initiation; and, responsive thereto, disabling the selectively controlling access to the network (see figure 3 which shows the process of identifying a call and then determining, based on location, if the call is allowed/denied).

As per **claim 30**, Andersson teaches claim 29, wherein said disabling includes disabling for a predetermined time period (figure 2d shows Restricted Times, #116D and #118D, which provides a “time range” whereby calls are allowed/denied, hence a time period is taught. A “timer” must be inherently used in order to measure the elapsed time).

As per **claim 32**, Andersson teaches claim 25, further comprising: receiving the network access information from the core network (Similar to the rejection of claim 1, the examiner interprets that the Network Access information is inputted by a Network Admin and accessed/transmitted from the HLR/VLR to the appropriate network components, eg. MSC/BSC/BTS).

As per **claim 33**, Andersson teaches claim 20, further comprising: detecting termination of an emergency call; and, responsive thereto, enabling the selectively controlling access to the network (figure 3 shows the process of a normal call and an emergency call being completed. The examiner notes that the "enabled/disabled control" process would be "reset" after each-and-every call).

Allowable Subject Matter

Claim 31 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Application/Control Number:
10/762,531
Art Unit: 2617

Page 15

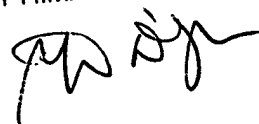
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

STEVE M. D'AGOSTA
PRIMARY EXAMINER



12-10-07